GOVERNMENT OF INDIA
POWER
LOK SABHA

UNSTARRED QUESTION NO:2419
ANSWERED ON:16.03.2017
Shortage of Water in Power Plants
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Will the Minister of POWER be pleased to state:

(a) whether the measures taken by the Government to overcome the shortage of water in Thermal Power Plants have achieved the desired results in the country;

(b) if so, the details thereof and if not, the reasons therefor;

(c) whether it is a fact that a number of Thermal Power Plants have been closed due to non-availability of water across the country during each of the last three years and the current year;

(d) if so, the details thereof and the reasons therefor;

(e) the number of Thermal Plants used treated sewage water across the country, as on date, State/UT-wise along with its impact on the tariff; and

(f) the corrective steps taken/being taken by the Government to bridge the gap between demand and supply of water in Thermal Power Plants across the country?

Answer

THE MINISTER OF STATE (INDEPENDENT CHARGE) FOR POWER,
COAL, NEW & RENEWABLE ENERGY AND MINES

(SHRI PIYUSH GOYAL)

(a) to (f) : Following steps have been taken to reduce water consumption in thermal power plants:

1. With effect from 01.06.1999, Closed Cycle System is being installed in new thermal power plants instead of Once Through Cooling System.

2. Installation of Ash water recirculation system and stoppage of discharge from ash pond effluent since 2003 onwards under Corporate Responsibility for Environmental Protection (CREP).

3. Adoption of high (65% solids) /medium concentration (38% solids) ash slurry disposal system.

4. Disposal of fly ash in dry form after the notification on fly ash utilisation in the year 1999.

5. Maintaining high Cycle of Concentration (COC) (5) in Cooling Towers.
6. Use of cooling tower blow down for disposal of bottom ash.

Through these measures, total consumptive water requirement in a closed cycle system for a thermal power plant has been brought down from 7m3/ MWh to about 3m3/MWh.

As per the information furnished by various utilities, the details of number of units which had to undergo shutdown during certain periods due to non-availability of water and generation loss thereof is given below:

Year Number of Units Loss of generation in MUs
2013-14 16 5253
2014-15 09 1258
2015-16 15 4989
2016-up to Feb,2017 21 5870

As per information available, Pragati Power of IPPGCL, Delhi and Rattan India Power Ltd, Nashik and Koradi TPS (3x660 MW) of MAHAGENCO use treated sewage water. As per the Tariff Policy dated 28.01.2016, the cost incurred on using treated sewage water be allowed as a pass through in the tariff.

To bridge the gap between demand and supply of water in thermal power plants, Government has taken various steps to reduce water consumption in the Thermal Power Plants as detailed above.

Further, the Government of India has notified new Tariff Policy on 28.01.2016 wherein it is mandated that the thermal power plant(s) including the existing plants located within 50 km radius of sewage treatment plant of Municipality / local bodies / similar organisation shall, in the order to their closeness to sewage treatment plant, mandatorily use treated sewage water produced by these bodies and the associated cost on this account be allowed as pass through in the tariff.

In addition to the above, Ministry of Environment, Forest and Climate Change, Govt. of India vide Notification dated 07.12.2015 has issued Environmental (Protection) Amendment Rules, 2015 wherein it is mandated that all existing and new plants shall achieve specified water consumption norms within period of two years from date of Notification.

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